

Amendment and Response

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Serial No.: 09/978,343

Confirmation No.: 4625

Filed: October 15, 2001

For: CANDIDA ALBICANS GENE, INTEGRIN-LIKE PROTEIN, ANTIBODIES AND METHODS OF USE**Amendments to the Claims**

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

28. [previously presented] An isolated and purified antibody to a *Candida albicans* integrin-like protein, wherein the protein has an amino acid sequence having SEQ ID NO:2, and wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
29. [previously presented] The antibody of claim 28 wherein the antibody is monoclonal or polyclonal.
30. [previously presented] The antibody of claim 28 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
31. [previously presented] The antibody of claim 28 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
32. [previously presented] An isolated and purified antibody to a polypeptide, wherein the polypeptide consists of SEQ ID NO:3.
33. [previously presented] The antibody of claim 32 wherein the antibody is monoclonal or polyclonal.
34. [previously presented] An isolated and purified antibody to a polypeptide, wherein the polypeptide has the amino acid sequence of SEQ ID NO:3, and wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

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35. [previously presented] The antibody of claim 34 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
36. [previously presented] An isolated and purified antibody to a peptide consisting of an amino acid sequence selected from the group consisting of:
- (a) YLS PTN NNN SKN VSD MDL HLQ NL (SEQ ID NO:4);
 - (b) DWK LED SND GDR EDN DDI SRF EK (SEQ ID NO:5);
 - (c) SKS ANT VRG DDD GLA SA (SEQ ID NO:6);
 - (d) DHL DSF DRS YNH TEQ SI (SEQ ID NO:7); and
 - (e) WIQ NLQ EII YRN RFR RQ (SEQ ID NO:8).
37. [previously presented] The antibody of claim 36 wherein the antibody is monoclonal or polyclonal.
38. [previously presented] An isolated and purified antibody to a peptide having an amino acid sequence selected from the group consisting of:
- (a) YLS PTN NNN SKN VSD MDL HLQ NL (SEQ ID NO:4);
 - (b) DWK LED SND GDR EDN DDI SRF EK (SEQ ID NO:5);
 - (c) SKS ANT VRG DDD GLA SA (SEQ ID NO:6);
 - (d) DHL DSF DRS YNH TEQ SI (SEQ ID NO:7); and
 - (e) WIQ NLQ EII YRN RFR RQ (SEQ ID NO:8), wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
39. [previously presented] The antibody of claim 38 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
40. [previously presented] An isolated and purified antibody to a polypeptide with integrin-like motifs encoded by a polynucleotide that hybridizes to DNA complementary to DNA

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having SEQ ID NO:1 under stringency conditions of hybridization in buffer containing 5x SSC, 5x Denhardt's, 0.5% SDS, 1 mg salmon sperm/25 mls of hybridization solution incubated at 65°C overnight, followed by high stringency washing with 0.2x SSC/0.1% SDS at 65°C, wherein the polypeptide with integrin-like motifs contains an I domain, two EF-hand divalent cation binding sites, a sequence sufficient to form a transmembrane domain, an internal RGD tripeptide, and a carboxy-terminal sequence having a single tyrosine residue, and wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

41. [previously presented] The antibody of claim 40 wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, and SEQ ID NO:8.
42. [previously presented] The antibody of claim 40 wherein the antibody is monoclonal or polyclonal.
43. [previously presented] The antibody of claim 40 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
44. [previously presented] The antibody of claim 40 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
45. [previously presented] An isolated and purified antibody to a *Candida albicans* polypeptide encoded by a polynucleotide having SEQ ID NO:1, wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
46. [previously presented] The antibody of claim 28, wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological

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stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

47. [previously presented] The antibody of claim 34 wherein the antibody blocks *Candida albicans* epithelial cell adhesion by at least about 50 percent.
48. [canceled]
49. [previously presented] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
50. [previously presented] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
51. [previously presented] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
52. [previously presented] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.
53. [previously presented] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
54. [previously presented] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
55. [previously presented] The antibody of claim 38 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.

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56. [previously presented] The antibody of claim 45 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.
57. [previously presented] The antibody of claim 45 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.
58. [previously presented] The antibody of claim 34 wherein the antibody is monoclonal or polyclonal.
59. [previously presented] The antibody of claim 38 wherein the antibody is monoclonal or polyclonal.
60. [previously presented] The antibody of claim 45 wherein the antibody is monoclonal or polyclonal.
61. [previously presented] The antibody of claim 32 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
62. [previously presented] The antibody of claim 34 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
63. [previously presented] The antibody of claim 36 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological

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stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

64. [previously presented] The antibody of claim 38 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
65. [previously presented] The antibody of claim 40 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.
66. [previously presented] The antibody of claim 45 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.